

IN THE CLAIMS:

Please amend the claims to read as follows:

-- 1-13 (cancelled):

<sup>1</sup>  
~~14~~ (currently amended) A nanocomposite comprising:

a diamagnetic core;

a thin layer of magnetic material formed on the diamagnetic core;

a passivating layer of diamagnetic material formed on the layer of magnetic material.

<sup>3</sup> ~~15~~. (original) The nanocomposite of claim <sup>1</sup>~~14~~, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

<sup>5</sup> ~~16~~. (previously amended) The nanocomposite of claim <sup>1</sup>~~14~~, comprising:

a gold core;

a thin layer of iron formed on the gold core;

a passivating layer of gold on the layer of iron.

<sup>7</sup> ~~17~~. (previously amended) The nanocomposite of claim <sup>1</sup>~~14~~, produced with a reverse micelle synthesis technique.

<sup>9</sup> ~~18~~. (previously amended) The nanocomposite of claim <sup>1</sup>~~14~~, synthesized using cetyltrimethylammonium bromide, n-butanol, octane and aqueous reactants.

<sup>17</sup> ~~19~~. (previously amended) Ferrofluids made with the nanocomposite of claim <sup>1</sup>~~14~~.

<sup>19</sup> ~~20~~. (previously amended) Granular GMR materials made with the nanocomposite of

claim ~~14~~.

21. (previously amended) Inductor materials made with the nanocomposite of claim

~~14~~.

<sup>23</sup>  
~~22~~. (previously amended) Storage media made with the nanocomposite of claim ~~14~~.

<sup>25</sup>~~23~~. (previously amended) Giant magnetoresistance sensors made with the nanocomposite of claim ~~14~~.

<sup>27</sup>~~24~~. (previously amended) Directed drug delivery agents made with the nanocomposite of claim ~~14~~.

<sup>29</sup>~~25~~. (previously amended) Agents for targeted sensing for *in vivo* applications made with the nanocomposite of claim ~~14~~.

<sup>11</sup> ~~26~~. (original) The nanocomposite of claim ~~14~~, wherein:

the diamagnetic core is a material from the group consisting of gold, silver, copper, and platinum;

the magnetic material is a material from the group consisting of iron and cobalt and platinum alloys containing iron and/or cobalt;

the passivating layer is a material from the group consisting of gold, silver, platinum, and copper, and alloys containing these materials.

<sup>13</sup>~~27~~. (currently amended) The invention nanocomposite of claim ~~14~~, wherein the nanocomposite is annealed.

<sup>15</sup>~~28~~. (currently amended) The invention nanocomposite of claim ~~27~~, wherein the nanocomposite is annealed at a temperature of about 300 K.

29. (cancelled).

<sup>2</sup> ~~30~~ (new) The nanocomposite of claim ~~14~~, wherein:

the layer of magnetic material is thin.

- <sup>4</sup>  
~~31~~. (new) The nanocomposite of claim <sup>3</sup>~~15~~, wherein:  
the layer of magnetic material is thin.
- <sup>6</sup>  
~~32~~. (new) The nanocomposite of claim <sup>5</sup>~~16~~, wherein:  
the layer of magnetic material is thin.
- <sup>8</sup>  
~~33~~. (new) The nanocomposite of claim <sup>7</sup>~~17~~, wherein:  
the layer of magnetic material is thin.
- <sup>10</sup>  
~~34~~. (new) The nanocomposite of claim <sup>9</sup>~~18~~, wherein:  
the layer of magnetic material is thin.
- <sup>18</sup>  
~~35~~. (new) The ferrofluids of claim <sup>17</sup>~~19~~, wherein:  
the layer of magnetic material is thin.
- <sup>20</sup>  
~~36~~. (new) The granular GMR materials of claim <sup>19</sup>~~20~~, wherein:  
the layer of magnetic material is thin.
- <sup>22</sup>  
~~37~~. (new) The inductor materials of claim ~~21~~, wherein:  
the layer of magnetic material is thin.
- <sup>24</sup>  
~~38~~. (new) The storage media of claim <sup>23</sup>~~22~~, wherein:  
the layer of magnetic material is thin.
- <sup>26</sup>  
~~39~~. (new) The giant magnetoresistance sensors of claim <sup>25</sup>~~23~~, wherein:  
the layer of magnetic material is thin.
- <sup>28</sup>  
~~40~~. (new) The directed drug delivery agents of claim <sup>27</sup>~~24~~, wherein:  
the layer of magnetic material is thin.
- <sup>30</sup>  
~~41~~. (new) The agents of claim <sup>29</sup>~~25~~, wherein:  
the layer of magnetic material is thin.
- <sup>32</sup>  
~~42~~. (new) The nanocomposite of claim <sup>31</sup>~~26~~, wherein:  
the layer of magnetic material is thin.

<sup>14</sup>  
~~43~~ (new) The nanocomposite of claim <sup>13</sup>~~27~~, wherein:

the layer of magnetic material is thin.

<sup>16</sup>  
~~44~~ (new) The nanocomposite of claim <sup>15</sup>~~28~~, wherein:

the layer of magnetic material is thin.